

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P249499

Luminaire Tested: **LSR8B90D010 EC8B90927 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249499
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13957)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B90D010 EC8B90927 8LBDW0B
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
97 CRI 2700 CCT WITH SPECULAR BLACK TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6626.2 lumens
Efficiency: N/A
Efficacy: 77.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

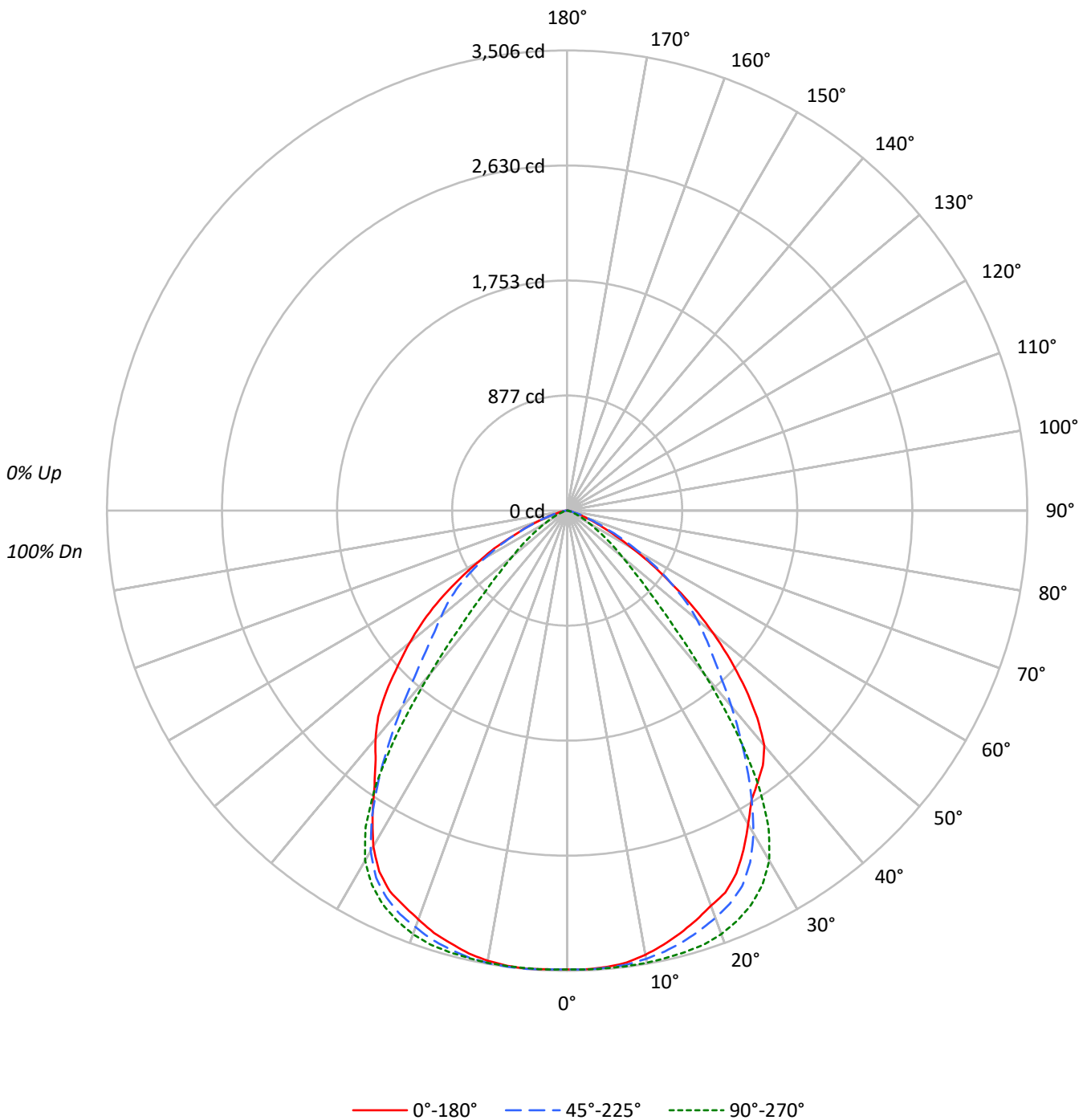
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	333.7	5.0
10°-20°	969.0	14.6
20°-30°	1470.7	22.2
30°-40°	1544.7	23.3
40°-50°	1158.1	17.5
50°-60°	743.1	11.2
60°-70°	317.9	4.8
70°-80°	75.1	1.1
80°-90°	14.0	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2773.4	41.9
0°-40°	4318.1	65.2
0°-60°	6219.3	93.9
0°-90°	6626.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6626.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3496	3496	3496	3496	3496	
5°	3490	3496	3500	3506	3504	332
15°	3333	3402	3481	3459	3416	940
25°	3050	3156	3316	3256	3200	1393
35°	2530	2389	2532	2502	2558	1588
45°	1922	1571	903	1526	1948	1472
55°	972	972	336	1013	1184	882
65°	293	345	107	445	452	312
75°	45	52	15	90	88	66
85°	15	9	8	15	21	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2
2.5°	3498.1	3501.8	3499.9	3499.9	3498.1	3499.9	3499.9	3503.7	3503.7	3499.9	3498.1
5°	3490.5	3494.2	3494.2	3490.5	3490.5	3499.9	3494.2	3498.1	3498.1	3496.2	3496.2
7.5°	3473.7	3473.7	3481.1	3475.6	3475.6	3481.1	3479.3	3483.0	3486.8	3488.6	3488.6
10°	3436.1	3439.8	3441.7	3441.7	3443.6	3449.2	3453.0	3460.5	3464.2	3468.0	3469.8
12.5°	3389.2	3394.8	3396.7	3394.8	3400.4	3408.0	3417.3	3426.8	3432.4	3439.8	3445.5
15°	3332.8	3332.8	3336.6	3342.3	3346.1	3357.3	3366.7	3377.9	3392.9	3402.3	3411.7
17.5°	3270.9	3274.8	3280.3	3280.3	3287.8	3306.6	3312.2	3329.1	3346.1	3355.4	3374.2
20°	3203.4	3207.2	3212.8	3216.6	3225.9	3240.9	3252.2	3267.2	3286.0	3302.9	3321.6
22.5°	3150.8	3143.4	3147.1	3150.8	3160.2	3173.4	3186.6	3205.2	3224.0	3240.9	3259.7
25°	3049.5	3051.3	3057.1	3060.8	3072.0	3083.3	3098.4	3120.9	3137.7	3156.5	3177.1
27.5°	2912.5	2914.4	2923.8	2923.8	2933.1	2951.9	2961.3	2980.1	3002.6	3021.3	3045.8
30°	2756.8	2760.5	2760.5	2768.1	2773.6	2783.0	2792.4	2811.2	2822.4	2839.3	2873.1
32.5°	2614.2	2617.9	2616.0	2614.2	2608.5	2606.6	2604.7	2608.5	2612.2	2617.9	2631.0
35°	2529.7	2520.3	2512.8	2499.6	2484.7	2465.9	2449.0	2426.5	2405.8	2388.9	2370.2
37.5°	2449.0	2447.1	2435.8	2417.1	2387.0	2353.3	2313.9	2265.1	2216.2	2163.7	2113.1
40°	2336.4	2330.8	2321.3	2295.1	2261.4	2220.1	2167.5	2107.5	2028.6	1947.9	1865.4
42.5°	2144.9	2146.8	2135.6	2114.9	2083.0	2043.7	1989.2	1923.5	1839.2	1743.4	1636.4
45°	1921.6	1921.6	1917.9	1901.0	1878.5	1846.6	1805.3	1750.8	1668.4	1570.7	1456.2
47.5°	1689.0	1690.9	1685.1	1681.4	1672.1	1651.4	1621.4	1580.2	1521.9	1428.1	1313.7
50°	1452.5	1452.5	1461.9	1460.0	1460.0	1452.5	1439.4	1414.9	1364.3	1289.2	1182.3
52.5°	1216.0	1219.8	1225.5	1232.9	1242.3	1257.3	1242.3	1231.1	1199.1	1141.0	1049.1
55°	972.1	975.8	985.2	998.3	1009.7	1024.6	1028.4	1028.4	1011.5	972.1	902.7
57.5°	763.8	758.1	765.7	776.9	792.0	807.0	818.2	831.4	829.5	803.2	746.9
60°	574.2	576.1	581.7	593.0	604.2	617.4	632.5	643.7	649.4	636.2	600.5
62.5°	418.5	418.5	425.9	437.2	442.9	461.7	471.0	476.7	482.3	480.4	457.9
65°	292.7	296.4	300.3	305.9	311.5	322.8	328.4	339.6	343.5	345.3	328.4
67.5°	206.4	200.8	204.5	208.2	214.0	221.5	232.8	232.8	238.3	238.3	227.0
70°	131.4	131.4	133.2	138.8	142.6	144.5	148.3	152.0	157.6	155.7	155.7
72.5°	88.2	86.3	88.2	90.1	92.0	97.5	97.5	99.4	103.3	105.1	97.5
75°	45.0	46.9	50.6	48.8	54.4	50.6	52.5	58.2	56.2	52.5	52.5
77.5°	37.5	37.5	37.5	35.7	39.4	39.4	37.5	41.3	39.4	39.4	37.5
80°	26.2	28.1	26.2	24.4	26.2	24.4	24.4	24.4	24.4	24.4	22.5
82.5°	20.7	16.9	18.8	16.9	18.8	18.8	16.9	15.0	15.0	16.9	15.0
85°	15.0	11.2	13.2	13.2	11.2	11.2	11.2	11.2	11.2	9.3	9.3
87.5°	9.3	5.6	5.6	5.6	7.5	7.5	7.5	5.6	7.5	7.5	3.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2
2.5°	3501.8	3499.9	3503.7	3501.8	3501.8	3499.9	3501.8	3499.9	3503.7	3496.2	3498.1
5°	3501.8	3498.1	3499.9	3501.8	3503.7	3499.9	3499.9	3499.9	3503.7	3499.9	3501.8
7.5°	3494.2	3492.3	3498.1	3501.8	3499.9	3498.1	3501.8	3499.9	3503.7	3501.8	3505.5
10°	3479.3	3481.1	3484.9	3490.5	3492.3	3494.2	3498.1	3498.1	3503.7	3496.2	3499.9
12.5°	3456.8	3464.2	3473.7	3477.4	3484.9	3484.9	3488.6	3490.5	3494.2	3492.3	3498.1
15°	3428.6	3438.0	3449.2	3458.6	3468.0	3473.7	3479.3	3481.1	3486.8	3481.1	3483.0
17.5°	3394.8	3406.0	3422.9	3434.2	3449.2	3454.9	3462.3	3466.1	3471.8	3468.0	3469.8
20°	3347.9	3361.0	3379.8	3396.7	3406.0	3419.2	3428.6	3434.2	3438.0	3434.2	3436.1
22.5°	3282.2	3301.0	3325.4	3338.6	3357.3	3368.6	3370.4	3383.6	3392.9	3383.6	3387.3
25°	3205.2	3224.0	3242.8	3270.9	3287.8	3301.0	3314.1	3316.0	3325.4	3323.5	3321.6
27.5°	3077.7	3102.1	3133.9	3156.5	3179.0	3199.6	3214.7	3218.4	3227.8	3224.0	3225.9
30°	2903.1	2929.4	2959.4	2995.1	3027.0	3047.6	3066.4	3079.6	3088.9	3083.3	3081.4
32.5°	2655.5	2681.7	2713.6	2749.3	2786.8	2816.8	2839.3	2856.3	2867.5	2863.7	2854.4
35°	2372.1	2379.6	2400.2	2428.3	2460.3	2492.1	2512.8	2531.6	2544.6	2548.5	2548.5
37.5°	2081.1	2056.8	2041.8	2041.8	2060.5	2073.6	2092.4	2103.6	2124.3	2131.9	2137.5
40°	1799.7	1743.4	1690.9	1651.4	1625.2	1623.3	1623.3	1628.9	1647.7	1672.1	1694.6
42.5°	1548.2	1458.1	1377.4	1304.2	1251.7	1221.6	1208.6	1210.4	1225.5	1248.0	1285.4
45°	1347.4	1234.8	1133.4	1045.2	973.9	927.0	904.5	902.7	914.0	940.2	981.4
47.5°	1191.7	1071.6	957.0	855.7	778.8	728.1	701.9	694.4	701.9	726.2	775.0
50°	1062.2	938.4	820.1	714.9	632.5	579.9	555.5	546.1	555.5	576.1	624.9
52.5°	942.1	814.5	703.7	602.4	514.2	469.1	442.9	437.2	442.9	467.2	506.7
55°	803.2	694.4	585.4	484.2	407.2	362.2	341.6	335.9	341.6	364.0	405.3
57.5°	666.2	572.4	476.7	384.8	319.0	279.6	260.9	253.4	266.5	281.5	330.3
60°	538.5	463.5	382.8	302.2	247.7	212.1	197.0	195.2	198.9	217.7	251.4
62.5°	422.2	360.3	296.4	230.8	185.7	170.8	152.0	150.2	153.9	165.2	191.5
65°	304.0	264.6	215.8	168.9	133.2	112.6	105.1	107.0	110.7	118.2	142.6
67.5°	212.1	183.9	150.2	118.2	92.0	82.6	75.0	73.2	75.0	88.2	101.4
70°	142.6	125.8	101.4	90.1	63.8	50.6	52.5	46.9	54.4	54.4	65.7
72.5°	93.8	82.6	67.5	52.5	45.0	35.7	35.7	33.8	37.5	39.4	48.8
75°	48.8	37.5	37.5	26.2	18.8	9.3	16.9	15.0	13.2	15.0	18.8
77.5°	33.8	28.1	26.2	20.7	18.8	15.0	15.0	15.0	15.0	16.9	18.8
80°	20.7	20.7	15.0	13.2	11.2	9.3	11.2	11.2	11.2	11.2	13.2
82.5°	13.2	11.2	11.2	9.3	9.3	7.5	7.5	7.5	7.5	7.5	11.2
85°	11.2	7.5	7.5	5.6	7.5	13.2	5.6	7.5	7.5	7.5	5.6
87.5°	3.7	5.6	5.6	5.6	3.7	1.9	3.7	5.6	5.6	9.3	7.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2	3496.2
2.5°	3501.8	3503.7	3503.7	3501.8	3501.8	3498.1	3505.5	3499.9	3501.8	3509.3	3503.7
5°	3505.5	3507.4	3507.4	3505.5	3505.5	3505.5	3507.4	3507.4	3505.5	3503.7	3507.4
7.5°	3513.0	3511.1	3511.1	3507.4	3507.4	3503.7	3507.4	3501.8	3505.5	3501.8	3507.4
10°	3503.7	3505.5	3503.7	3501.8	3501.8	3499.9	3499.9	3494.2	3496.2	3490.5	3494.2
12.5°	3498.1	3496.2	3496.2	3492.3	3488.6	3484.9	3483.0	3477.4	3477.4	3464.2	3469.8
15°	3483.0	3484.9	3479.3	3471.8	3468.0	3458.6	3454.9	3447.3	3439.8	3430.5	3432.4
17.5°	3469.8	3464.2	3456.8	3449.2	3434.2	3426.8	3419.2	3408.0	3404.1	3392.9	3389.2
20°	3430.5	3426.8	3417.3	3404.1	3394.8	3377.9	3370.4	3359.1	3349.8	3338.6	3332.8
22.5°	3379.8	3376.0	3364.8	3351.6	3336.6	3329.1	3321.6	3301.0	3291.5	3280.3	3278.5
25°	3316.0	3310.3	3299.1	3284.1	3276.6	3256.0	3248.4	3233.4	3229.6	3218.4	3216.6
27.5°	3218.4	3210.9	3197.8	3179.0	3165.9	3152.7	3145.3	3133.9	3130.2	3119.0	3117.0
30°	3072.0	3062.6	3036.4	3028.8	3006.3	2993.2	2993.2	2978.2	2980.1	2972.6	2972.6
32.5°	2841.2	2826.2	2805.5	2790.6	2775.5	2768.1	2768.1	2762.3	2766.2	2766.2	2769.9
35°	2535.3	2514.7	2503.4	2494.0	2494.0	2501.5	2524.0	2529.7	2540.9	2550.4	2557.8
37.5°	2143.1	2141.2	2154.4	2165.6	2193.8	2225.7	2265.1	2298.8	2330.8	2353.3	2375.8
40°	1719.0	1765.9	1803.4	1856.0	1899.1	1961.1	2032.4	2090.6	2144.9	2184.4	2225.7
42.5°	1341.8	1401.9	1480.6	1557.6	1634.5	1719.0	1812.8	1893.5	1964.8	2019.3	2062.4
45°	1045.2	1127.8	1223.6	1321.2	1420.6	1525.7	1623.3	1705.8	1780.9	1837.2	1880.4
47.5°	842.6	932.7	1041.5	1148.5	1261.1	1371.8	1480.6	1551.9	1613.9	1658.9	1698.4
50°	696.3	792.0	906.4	1028.4	1141.0	1251.7	1345.5	1414.9	1465.6	1505.0	1529.4
52.5°	581.7	683.1	805.1	927.0	1039.6	1141.0	1225.5	1278.0	1319.3	1347.4	1369.9
55°	480.4	578.0	692.4	807.0	917.7	1013.4	1082.8	1122.2	1154.1	1171.0	1184.2
57.5°	392.2	482.3	587.4	692.4	788.2	867.0	921.5	960.9	975.8	989.0	987.1
60°	307.8	392.2	487.9	578.0	660.6	724.4	763.8	786.3	797.5	803.2	799.4
62.5°	242.1	319.0	392.2	471.0	531.1	585.4	623.0	623.0	628.6	630.6	636.2
65°	180.1	238.3	302.2	360.3	409.0	444.7	465.4	471.0	478.6	476.7	473.0
67.5°	133.2	176.4	223.3	266.5	300.3	322.8	337.7	351.0	349.1	345.3	343.5
70°	92.0	120.2	161.4	187.6	212.1	234.6	238.3	240.2	242.1	244.0	240.2
72.5°	63.8	84.5	107.0	129.5	144.5	153.9	163.2	165.2	165.2	165.2	163.2
75°	32.0	43.2	63.8	73.2	86.3	90.1	97.5	97.5	103.3	95.7	93.8
77.5°	28.1	33.8	45.0	52.5	58.2	63.8	65.7	71.3	69.4	65.7	67.5
80°	16.9	20.7	28.1	32.0	39.4	41.3	43.2	45.0	43.2	45.0	45.0
82.5°	13.2	15.0	18.8	18.8	24.4	24.4	26.2	26.2	28.1	28.1	28.1
85°	7.5	13.2	11.2	22.5	15.0	15.0	18.8	22.5	18.8	18.8	22.5
87.5°	7.5	7.5	5.6	7.5	7.5	7.5	9.3	11.2	11.2	13.2	11.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P249499

CATALOG NUMBER: LSR8B90D010 EC8B90927 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3496.2	3496.2	3496.2	3496.2
2.5°	3501.8	3505.5	3499.9	3498.1
5°	3507.4	3507.4	3503.7	3503.7
7.5°	3507.4	3507.4	3501.8	3498.1
10°	3492.3	3492.3	3486.8	3483.0
12.5°	3464.2	3464.2	3462.3	3456.8
15°	3428.6	3428.6	3421.0	3415.5
17.5°	3379.8	3383.6	3374.2	3374.2
20°	3327.3	3325.4	3317.8	3314.1
22.5°	3272.8	3269.0	3267.2	3256.0
25°	3214.7	3210.9	3205.2	3199.6
27.5°	3115.2	3113.3	3107.7	3100.2
30°	2963.1	2961.3	2953.8	2953.8
32.5°	2766.2	2764.2	2756.8	2758.6
35°	2561.6	2569.0	2565.3	2557.8
37.5°	2390.8	2396.5	2400.2	2396.5
40°	2248.2	2265.1	2267.0	2270.7
42.5°	2096.2	2118.7	2126.2	2130.0
45°	1914.2	1934.8	1951.6	1947.9
47.5°	1728.3	1743.4	1758.4	1747.1
50°	1550.1	1559.5	1565.1	1565.1
52.5°	1381.2	1381.2	1379.4	1381.2
55°	1187.9	1187.9	1180.5	1184.2
57.5°	985.2	989.0	983.4	973.9
60°	797.5	788.2	784.5	778.8
62.5°	621.2	621.2	608.1	624.9
65°	465.4	459.8	454.2	452.2
67.5°	337.7	335.9	330.3	328.4
70°	238.3	230.8	228.9	225.2
72.5°	159.5	159.5	155.7	155.7
75°	97.5	88.2	86.3	88.2
77.5°	67.5	65.7	65.7	63.8
80°	45.0	43.2	46.9	41.3
82.5°	28.1	30.0	28.1	30.0
85°	18.8	22.5	20.7	20.7
87.5°	11.2	11.2	11.2	11.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)